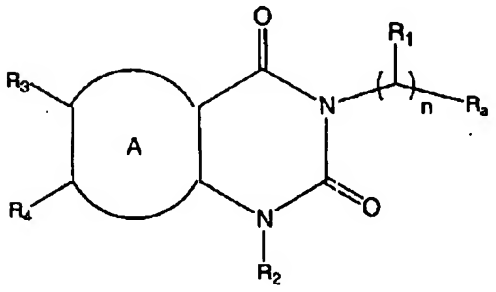
CLAIM AMENDMENTS

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Currently amended) A compound having formula (I):



(I);

wherein:

ring A is an ~~optionally substituted~~ aryl or heteroaryl ring wherein said aryl or heteroaryl ring is either unsubstituted or substituted with one or more substituents selected from halogen, $-R^\circ$, $-OR^\circ$, $-SR^\circ$, 1,2-methylene-dioxy, 1,2-ethylenedioxy; unsubstituted phenyl (Ph), unsubstituted $-O(Ph)$, unsubstituted $-CH_2(Ph)$, unsubstituted $-CH_2CH_2(Ph)$ or (Ph), $-O(Ph)$, $-CH_2(Ph)$, or $-CH_2CH_2(Ph)$ substituted with one or more $-R^\circ$ groups; $-NO_2$, $-CN$, $-N(R^\circ)_2$, $-NR^\circ C(O)R^\circ$, $-NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ CO_2R^\circ$, $-NR^\circ NR^\circ C(O)R^\circ$, $-NR^\circ NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ NR^\circ CO_2R^\circ$, $-C(O)C(O)R^\circ$, $-C(O)CH_2C(O)R^\circ$, $-CO_2R^\circ$, $-C(O)R^\circ$, $-C(O)N(R^\circ)_2$, $-OC(O)N(R^\circ)_2$, $-S(O)_2R^\circ$, $-SO_2N(R^\circ)_2$, $-S(O)R^\circ$, $-NR^\circ SO_2N(R^\circ)_2$, $-NR^\circ SO_2R^\circ$, $-C(=S)N(R^\circ)_2$, $-C(=NH)-N(R^\circ)_2$, or $-(CH_2)_qNHC(O)R^\circ$; wherein:

q is 0-2; and wherein:

each R° is independently selected from hydrogen, a C_{1-6} aliphatic, wherein said C_{1-6} aliphatic group is either unsubstituted or substituted with one or more

substituents selected from =O, =S, =NNHR*, =NN(R*)$_2$, =NNHC(O)R*, =NNHCO$_2$(alkyl), =NNHSO$_2$(alkyl), =NR*NH$_2$, NH(C$_{1-4}$ aliphatic), N(C$_{1-4}$ aliphatic)$_2$, halogen, C$_{1-4}$ aliphatic, OH, O(C$_{1-4}$ aliphatic), NO$_2$, CN, CO$_2$H, CO$_2$(C$_{1-4}$ aliphatic), O(halo C$_{1-4}$ aliphatic), or halo C$_{1-4}$ aliphatic; an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, phenyl, -O(Ph), or -CH$_2$(Ph), or wherein two occurrences of R°, on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; wherein:

each R* is independently selected from hydrogen or a C$_{1-6}$ aliphatic group wherein said aliphatic group of R* is either unsubstituted or substituted with one or more substituents selected from NH$_2$, NH(C$_{1-4}$ aliphatic), N(C$_{1-4}$ aliphatic)$_2$, halogen, C$_{1-4}$ aliphatic, OH, O(C$_{1-4}$ aliphatic), NO$_2$, CN, CO$_2$H, CO$_2$(C$_{1-4}$ aliphatic), O(halo C$_{1-4}$ aliphatic), or halo(C$_{1-4}$ aliphatic);

the nitrogen of any non-aromatic heterocyclic ring is either unsubstituted or substituted with one or more groups selected from -R+, -N(R+)$_2$, -C(O)R+, -OR+, -CO$_2$R+, -C(O)C(O)R+, -C(O)CH$_2$C(O)R+, -SO$_2$R+, -SO$_2$N(R+)$_2$, -C(=S)N(R+)$_2$, -C(=NH)-N(R+)$_2$, or -NR+SO$_2$R+; wherein:

R+ is hydrogen, an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, an unsubstituted C$_{1-6}$ aliphatic, unsubstituted phenyl (Ph), unsubstituted -O(Ph), unsubstituted -CH$_2$(Ph), unsubstituted -CH$_2$CH$_2$(Ph); or C$_{1-6}$ aliphatic, phenyl(Ph), -O(Ph), -CH$_2$(Ph), or -CH$_2$CH$_2$(Ph) substituted with one or more groups selected from NH$_2$, NH(C$_{1-4}$ aliphatic), N(C$_{1-4}$ aliphatic)$_2$, halogen, C$_{1-4}$ aliphatic, OH, O(C$_{1-4}$ aliphatic), NO$_2$, CN, CO$_2$H, CO$_2$(C$_{1-4}$ aliphatic), O(halo C$_{1-4}$ aliphatic), or halo(C$_{1-4}$ aliphatic) or wherein two occurrences of R+, on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring

having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R_a is -COOH;

n is 0-4;

R_1 is H, or ~~an optionally substituted~~ a hydroxyaliphatic, aminoaliphatic, aliphatic-COOH, aliphatic-$CONH_2$, or arylaliphatic wherein said hydroxyaliphatic, aminoaliphatic, aliphatic-COOH, aliphatic-$CONH_2$, or arylaliphatic is either unsubstituted or substituted with one or more substituents selected from halogen, $-R^\circ$, $-OR^\circ$, $-SR^\circ$, 1,2-methylene-dioxy, 1,2-ethylenedioxy; unsubstituted phenyl (Ph), unsubstituted -O(Ph), unsubstituted $-CH_2(Ph)$, unsubstituted $-CH_2CH_2(Ph)$ or (Ph), -O(Ph), $-CH_2(Ph)$, or $-CH_2CH_2(Ph)$ substituted with one or more $-R^\circ$ groups; $-NO_2$, -CN, $-N(R^\circ)_2$, $-NR^\circ C(O)R^\circ$, $-NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ CO_2R^\circ$, $-NR^\circ NR^\circ C(O)R^\circ$, $-NR^\circ NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ NR^\circ CO_2R^\circ$, $-C(O)C(O)R^\circ$, $-C(O)CH_2C(O)R^\circ$, $-CO_2R^\circ$, $-C(O)R^\circ$, $-C(O)N(R^\circ)_2$, $-OC(O)N(R^\circ)_2$, $-S(O)_2R^\circ$, $-SO_2N(R^\circ)_2$, $-S(O)R^\circ$, $-NR^\circ SO_2N(R^\circ)_2$, $-NR^\circ SO_2R^\circ$, $-C(=S)N(R^\circ)_2$, $-C(=NH)-N(R^\circ)_2$, or $-(CH_2)_qNHC(O)R^\circ$; wherein:

q is 0-2; and wherein:

each R° is independently selected from hydrogen, a C_{1-6} aliphatic, wherein said C_{1-6} aliphatic group is either unsubstituted or substituted with one or more substituents selected from =O, =S, $=NNHR^*$, $=NN(R^*)_2$, $=NNHC(O)R^*$, $=NNHCO_2(alkyl)$, $=NNHSO_2(alkyl)$, $=NR^*NH_2$, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic$)_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo C_{1-4} aliphatic; an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, phenyl, -O(Ph), or $-CH_2(Ph)$, or wherein two occurrences of R°, on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms

independently selected from nitrogen, oxygen, or sulfur; wherein:

each R^* is independently selected from hydrogen or a C_{1-6} aliphatic group wherein said aliphatic group of R^* is either unsubstituted or substituted with one or more substituents selected from NH_2, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic)$_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo(C_{1-4} aliphatic);

the nitrogen of any non-aromatic heterocyclic ring is either unsubstituted or substituted with one or more groups selected from $-R^+$, $-N(R^+)_2$, $-C(O)R^+$, $-OR^+$, $-CO_2R^+$, $-C(O)C(O)R^+$, $-C(O)CH_2C(O)R^+$, $-SO_2R^+$, $-SO_2N(R^+)_2$, $-C(=S)N(R^+)_2$, $-C(=NH)-N(R^+)_2$, or $-NR^+SO_2R^+$; wherein:

R^+ is hydrogen, an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, an unsubstituted C_{1-6} aliphatic, unsubstituted phenyl (Ph), unsubstituted -O(Ph), unsubstituted $-CH_2(Ph)$, unsubstituted $-CH_2CH_2(Ph)$; or C_{1-6} aliphatic, phenyl(Ph), -O(Ph), $-CH_2(Ph)$, or $-CH_2CH_2(Ph)$ substituted with one or more groups selected from NH_2, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic)$_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo(C_{1-4} aliphatic) or wherein two occurrences of R^*, on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R_2 is an ~~optionally substituted~~ aliphatic, ~~arylaliphatic,~~ cycloaliphatic-aliphatic, or heteroarylaliphatic, ~~or heterocyclylaliphatic,~~ wherein said aliphatic, cycloaliphatic-aliphatic, heteroarylaliphatic, or is either unsubstituted or substituted with one or more substituents selected from halogen, $-R^\circ$, $-OR^\circ$, $-SR^\circ$, 1,2-methylene-dioxy, 1,2-ethylenedioxy; unsubstituted phenyl (Ph), unsubstituted

-O(Ph), unsubstituted $-CH_2(Ph)$, unsubstituted $-CH_2CH_2(Ph)$ or (Ph), -O(Ph), $-CH_2(Ph)$, or $-CH_2CH_2(Ph)$ substituted with one or more $-R^\circ$ groups; $-NO_2$, -CN, $-N(R^\circ)_2$, $-NR^\circ C(O)R^\circ$, $-NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ CO_2R^\circ$, $-NR^\circ NR^\circ C(O)R^\circ$, $-NR^\circ NR^\circ C(O)N(R^\circ)_2$, $-NR^\circ NR^\circ CO_2R^\circ$, $-C(O)C(O)R^\circ$, $-C(O)CH_2C(O)R^\circ$, $-CO_2R^\circ$, $-C(O)R^\circ$, $-C(O)N(R^\circ)_2$, $-OC(O)N(R^\circ)_2$, $-S(O)_2R^\circ$, $-SO_2N(R^\circ)_2$, $-S(O)R^\circ$, $-NR^\circ SO_2N(R^\circ)_2$, $-NR^\circ SO_2R^\circ$, $-C(=S)N(R^\circ)_2$, $-C(=NH)-N(R^\circ)_2$, or $-(CH_2)_qNHC(O)R^\circ$; wherein:

q is 0-2; and wherein:

each R° is independently selected from hydrogen, a C_{1-6} aliphatic, wherein said C_{1-6} aliphatic group is either unsubstituted or substituted with one or more substituents selected from =O, =S, $=NNHR^*$, $=NN(R^*)_2$, $=NNHC(O)R^*$, $=NNHCO_2$(alkyl), $=NNHSO_2$(alkyl), $=NR^*NH_2$, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic$)_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo C_{1-4} aliphatic; an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, phenyl, -O(Ph), or $-CH_2(Ph)$, or wherein two occurrences of R°; on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; wherein:

each R^* is independently selected from hydrogen or a C_{1-6} aliphatic group wherein said aliphatic group of R^* is either unsubstituted or substituted with one or more substituents selected from NH_2, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic$)_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo$(C_{1-4}$ aliphatic);

the nitrogen of any non-aromatic heterocyclic ring is either unsubstituted or substituted with one or more groups selected from $-R^+$, $-N(R^+)_2$, $-C(O)R^+$, $-OR^+$, $-CO_2R^+$, $-C(O)C(O)R^+$, $-C(O)CH_2C(O)R^+$, $-SO_2R^+$, $-SO_2N(R^+)_2$,

$-C(=S)N(R^*)_2$, $-C(=NH)-N(R^*)_2$, or $-NR^*SO_2R^*$; wherein:
R^* is hydrogen, an unsubstituted 5-6 membered heteroaryl or heterocyclic ring, an unsubstituted C_{1-6} aliphatic, unsubstituted phenyl (Ph), unsubstituted -O(Ph), unsubstituted $-CH_2(Ph)$, unsubstituted $-CH_2CH_2(Ph)$; or C_{1-6} aliphatic, phenyl(Ph), -O(Ph), $-CH_2(Ph)$, or $-CH_2CH_2(Ph)$ substituted with one or more groups selected from NH_2, $NH(C_{1-4}$ aliphatic), $N(C_{1-4}$ aliphatic$)_2$, halogen, C_{1-4} aliphatic, OH, $O(C_{1-4}$ aliphatic), NO_2, CN, CO_2H, $CO_2(C_{1-4}$ aliphatic), O(halo C_{1-4} aliphatic), or halo(C_{1-4} aliphatic) or wherein two occurrences of R^*, on the same substituent or different substituents, taken together, form a 5-8-membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R^3 and R^4 are independently selected from R^{11}, R^{12}, R^{14} or R^{15};

wherein:

each R^{11} is independently selected from 1,2-methylenedioxy, 1,2-ethylenedioxy, R^6 or $(CH_2)_m$-Y;

wherein m is 0, 1 or 2; and

Y is selected from halogen, CN, NO_2, CF_3, OCF_3, OH, SR^6, $S(O)R^6$, SO_2R^6, NH_2, NHR^6, $N(R^6)_2$, NR^6R^8, COOH, $COOR^6$ or OR^6;

each R^{12} is independently selected from (C_1-C_6)-straight or branched alkyl, or (C_2-C_6)-straight or branched alkenyl or alkynyl; and each R^{12} optionally comprises up to 2 substituents, wherein:

the first of said substituents, if present, is selected from R^{11}, R^{14} and R^{15}, and

the second of said substituents, if present, is R^{11};

each R^{14} is independently selected from OR^{15},

$OC(O)R^6$, $OC(O)R^{15}$, $OC(O)OR^6$, $OC(O)OR^{15}$, $OC(O)N(R^6)_2$, $OP(O)(OR^6)_2$, SR^6, SR^{15}, $S(O)R^6$, $S(O)R^{15}$, SO_2R^6, SO_2R^{15}, $SO_2N(R^6)_2$, $SO_2NR^{15}R^6$, SO_3R^6, $C(O)R^{15}$, $C(O)OR^{15}$, $C(O)R^6$, $C(O)OR^6$, $NC(O)C(O)R^6$, $NC(O)C(O)R^{15}$, $NC(O)C(O)OR^6$, $NC(O)C(O)N(R^6)_2$, $C(O)N(R^6)_2$, $C(O)N(OR^6)R^6$, $C(O)N(OR^6)R^{15}$, $C(NOR^6)R^6$, $C(NOR^6)R^{15}$, $N(R^6)_2$, $NR^6C(O)R^{11}$, $NR^6C(O)R^6$, $NR^6C(O)R^{15}$, $NR^6C(O)OR^6$, $NR^6C(O)OR^{15}$, $NR^6C(O)N(R^6)_2$, $NR^6C(O)NR^{15}R^6$, $NR^6SO_2R^6$, $NR^6SO_2R^{15}$, $NR^6SO_2N(R^6)_2$, $NR^6SO_2NR^{15}R^6$, $N(OR^6)R^6$, $N(OR^6)R^{15}$, $P(O)(OR^6)N(R^6)_2$, and $P(O)(OR^6)_2$;

each R^{15} is a cycloaliphatic, aryl, heterocyclyl, or heteroaromatic; and each R^{15} optionally comprises up to 3 substituents, each of which, if present, is R^{11};

each R^6 is independently selected from H, (C_1-C_6)-straight or branched alkyl, or (C_2-C_6) straight or branched alkenyl; and each R^6 optionally comprises a substituent that is R^7;

R^7 is a cycloaliphatic, aryl, heterocyclyl, or heteroaromatic; and each R^7 optionally comprises up to 2 substituents independently chosen from H, (C_1-C_6)-straight or branched alkyl, (C_2-C_6) straight or branched alkenyl, 1,2-methylenedioxy, 1,2-ethylenedioxy, or $(CH_2)_p-Z$;

wherein p is 0, 1 or 2; and

Z is selected from halogen, CN, NO_2, CF_3, OCF_3, OH, $S(C_1-C_6)$-alkyl, $SO(C_1-C_6)$-alkyl, $SO_2(C_1-C_6)$-alkyl, NH_2, $NH(C_1-C_6)$-alkyl, $N((C_1-C_6)\text{-alkyl})_2$, $N((C_1-C_6)\text{-alkyl})R^8$, COOH, $C(O)O(C_1-C_6)$-alkyl or $O(C_1-C_6)$-alkyl; and

R^8 is an amino protecting group;

provided that:

R^3 and R^4 are not simultaneously hydrogen;

when R^3 is H, then R^4 is not chloro; and

when R^4 is H, then R^3 is not $-SCH_3$ or $-NH-C(O)CH_3$.

2. (Original) The compound according to claim 1, wherein ring A is an optionally substituted 5 or 6 membered aryl or heteroaryl ring, wherein said heteroaryl ring contains up to 2 ring heteroatoms independently selected from O, S, or NH.

3. (Original) The compound according to claim 2, wherein ring A is phenyl.

4. (Original) The compound according to claim 1, wherein R_1 is hydrogen, $-(CH_2)_q-X$, wherein q is 1-4, and X is OH, NH_2, COOH or $CONH_2$, (C1-C6)-alkyl, or benzyl.

5. (Currently amended) The compound according to claim 4, wherein R_1 is hydrogen, hydroxymethyl, methyl, $-CH_2COOH$, $-CH_2CONH_2$, aminobutyl, ~~methyl,~~ or isopentyl.

6. (Currently amended) The compound according to claim 1, wherein R_2 is selected from butyl, isobutyl, methoxypropyl, cyclopentyl, cyclohexylmethyl, or ~~phenyl, trifluorophenyl, benzyl, fluorobenzyl, methylenedioxybenzyl~~, pyridylmethyl, furanylmethyl, ~~tetrahydrofuranylmethyl, N-morpholinylmethyl,~~ thienylmethyl, ~~2-oxo-pyrrolidinylpropyl, phenylethyl, chlorophenylethyl, methoxyphenylethyl, or dimethoxyphenylethyl~~.

7. (Currently amended) The compound according to claim 6, wherein R_2 is selected from 2-furanylmethyl ~~or methyl~~.

~~According to another preferred embodiment, R_3 and R_4 are independently selected from hydrogen, halo, acetamido, allyloxy, thiophenyl, sulfoxyalkyl, or sulfoxyphenyl.~~

8. (Canceled)

9. (Currently amended) A pharmaceutical composition comprising a compound according to any one of claims ~~1-8~~ 1-7 and 17-18 and a pharmaceutically acceptable adjuvant or carrier.

10. (Withdrawn) A method for treating or lessening the severity of a disease in a patient, wherein said disease is selected from autoimmune diseases, proliferative diseases, angiogenic disorders, or cancers, said method comprising the step of administering to said patient a composition according to claim 9.

11. (Withdrawn) A method for treating or lessening the severity of a SHP-2-mediated disease or condition in a patient comprising the step of administering to said patient a composition according to claim 9.

12. (Withdrawn) The method according to claim 10, wherein said autoimmune disease is selected from glomerulo-nephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Graves' disease, autoimmune gastritis, diabetes, autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, atopic dermatitis, chronic active hepatitis, myasthenia gravis, multiple sclerosis, inflammatory bowel disease, ulcerative colitis, Crohn's disease, psoriasis, or graft vs. host disease.

13. (Withdrawn) The method according to claim 10, wherein said proliferative disease is selected from acute

myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, multiple myeloma or HTLV-1-mediated tumorigenesis.

14. (Withdrawn) The method according to claim 10, wherein said angiogenic disorder is selected from solid tumors, ocular neovasculization, or infantile haemangiomas.

15. (Withdrawn) The method according to claim 10, wherein said cancers is selected from colon cancer, breast cancer, stomach cancer, or ovarian cancers.

16. (Withdrawn-currently amended) An implantable medical device coated with a compound according to any one of claims ~~1-8~~ 1-7 and 17-18, wherein said device is selected from prostheses, artificial valves, vascular grafts, stents or catheters.

17. (New) The compound according to claim 1 wherein R_3 and R_4 are independently selected from hydrogen, halo, acetamido, allyloxy, thiophenyl, sulfoxyalkyl, or sulfoxyphenyl.

18. (New) A compound according to claim 1 selected from: